

With April came the beginning of the rainy season in the central region of Chile. The atmospheric circulation over the Pacific showed moderate intensity, but the mean path of the depressions was shifted more to the north.

The depressions of greatest importance were charted as follows: 12th to 17th, crossing the extreme south and causing unsettled weather with general rains in the south; and 24th to 26th, affecting conditions over the entire central region, with rain and high wind from Chiloe to Coquimbo. Snow fell to moderate depths in the cordillera and a temperature of 19° F. was recorded at Portillo (10,500 feet).

Periods of fine weather and fall in temperature accompanied the anticyclones of the periods 1st to 8th, 21st to 24th, and 28th to 30th, all moving from southern Chile, latitude 40° to 45° S., toward northern Argentina.—*Translated by W. W. R.*

*Meteorological station at Portillo, Chile.*—In April the Observatorio del Salto, Santiago, Chile, installed a new meteorological station at Portillo in the cordillera of the Andes at an elevation of 3,000 meters (9,840 feet). This station is equipped with instruments for the automatic recording of pressure, temperature, humidity, direction and force of wind, and precipitation.—*J. B. N.*

## BIBLIOGRAPHY

C. FITZHUGH TALMAN, in Charge of Library

### RECENT ADDITIONS

The following have been selected from among the titles of books recently received as representing those most likely to be useful to Weather Bureau officials in their meteorological work and studies:

Berce, Richard.

Projet de réorganisation scientifique du réseau météorologique au Congo belge. Bruxelles. 1930. p. 81-92. 24 cm. (Annales de Gembloux (mars 1930.) )

Berry, Edward W.

Past climate of the North Polar region. Washington. 1930. 29 p. figs. 24½ cm. (Smith. misc. coll. v. 82, no. 6.)

Brooks, Charles E. P.

Climate; a handbook for business men, students and travellers. London. 1929. 199 p. illus. (maps). diagr. 22 cm.

Burchard, Albrecht.

Staat und Klima. Berlin. 1928. 80 p. figs. 20 cm. (Weltpolitische Bücherei. Bd. 5.)

Georgii, Walter.

Beobachtungsergebnisse aerologischer Flugzeugaufstiege in Darmstadt und auf der Wasserkuppe in der Rhön Dezember 1927-Dezember 1928. München. 1929. 37 p. 30 cm. (Veröffent. des Forschungs-Inst. der Rhön-Rossitten-Gesellsch. e. V. Nr. 3.)

Huntington, Ellsworth.

Weather and health. A study of daily mortality in New York City. Washington. 1930. 161 p. diagr. 25 cm. (Bull Nat. res. coun. no. 75. Apr. 1930.)

Köhler, Hilding.

Untersuchungen über die Wolkenbildung auf dem Pärtetjåkko im August 1928 nebst einer erweiterten Untersuchung der Tropfengruppen. Stockholm. 1930. p. 77-128. illus. 26¼ cm. (Naturwiss. Untersuch. des Sarekgebirges in Schwed.-Lappland. Bd. 2. Met. & Geophys. Lief. 2.)

Molchanov, P.

Erforschung der höheren Atmosphärenschichten mit Hilfe eines Radiometeorographen. [Leningrad. 1930.] [3 p.] fig. 36 cm. [Author, title and text in Russian and German.]

Much, Hans.

Klima, Volkergesundheit und Weltwirtschaft. Leipzig. 1929. x, 41 p. 19½ cm. (Moderne Biologie, moderne Medizin. H. 13.)

Royds, Robert.

Measurement of steady and fluctuating temperatures. London. 1921. xi, 162 p. illus. diagrs. 22 cm.

Streiff-Becker, R.

Altes und neues über den Glarner-Föhn. Glarus. 1930. 51 p. illus. plate. 22 cm. (Separatab.: "Mitt. 1930" der Naturforsch. Gesell. des Kantons Glarus.)

Voitoux, G.

La navigation aérienne transatlantique. Paris. 1930. 144 p. figs. map (fold.) 25½ cm.

Warmington, E. H.

Commerce between the Roman empire and India. Cambridge. 1928. x, 417 p. plate. map (fold.) 19½ cm. [Note: Chap. 2. Early developments: the discovery of the monsoons: results.]

Whatham, Richard.

Meteorology for aviator and layman. New York. 1930. xvi, 179 p. illus. 19½ cm.

Willett, H. C.

Synoptic studies in fog. Cambridge. 1930. 37 p. charts. 28 cm. (Mass. inst. tech. Met'l papers. v. 1, 1.)

## SOLAR OBSERVATIONS

### SOLAR AND SKY RADIATION MEASUREMENTS DURING MAY, 1930

By HERBERT H. KIMBALL, Solar Radiation Investigations

For reference to descriptions of instruments and exposures, and an account of the method of obtaining and reducing the measurements, the reader is referred to this volume of the REVIEW, page 26.

Table 1 shows that solar radiation intensities averaged slightly above the normal intensity for May at Washington and Lincoln, and close to normal at Madison.

Table 2 shows an excess in the total radiation received on a horizontal surface at Washington, New York, and Chicago, a deficiency at Lincoln, Twin Falls, and Fresno, and close to the May normal at Madison.

Skylight polarization measurements obtained on 7 days at Washington give a mean of 53 per cent and a maximum of 62 per cent on the 29th. At Madison measurements obtained on 6 days give a mean of 55 per cent with a maximum of 63 per cent on the 2d. These are close to the corresponding averages for May at Washington and slightly below at Madison.